

1. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:1,
- b) a naturally occurring amino acid sequence having at least 80% sequence identity to an amino acid sequence consisting of SEQ ID NO:1,
- c) a biologically active fragment of an amino acid sequence consisting of SEQ ID NO:1, and
- d) an immunogenic fragment of an amino acid sequence consisting of SEQ ID NO:1.

2. (As Once Amended) An isolated antibody which specifically binds to a polypeptide selected from the group consisting of:

- a) a polypeptide comprising the amino acid sequence of SEQ ID NO:1,
- b) a polypeptide comprising a naturally occurring amino acid sequence at least 80% identical to the amino acid sequence of SEQ ID NO:1, wherein the polypeptide binds calcium,
- c) a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1, wherein the fragment binds calcium,
- d) a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1, wherein the fragment comprises residues A90-L102 of SEQ ID NO:1,
- e) a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1, wherein the fragment comprises residues D213-Y225 of SEQ ID NO:1,
- f) a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1, wherein the fragment comprises residues D254-V266 of SEQ ID NO:1, and
- g) a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1, wherein the fragment comprises residues D290-I302 of SEQ ID NO:1.

3. (As Once Amended) A composition comprising the antibody of claim 2 and a reporter molecule.

4. (As Once Amended) A composition comprising the antibody of claim 2 and an acceptable excipient.

5. The antibody of claim 2, wherein the antibody is an antagonist of a polypeptide comprising the amino acid sequence of SEQ ID NO:1.

6. (As Once Amended) A method of preparing a polyclonal antibody with the specificity of the antibody of claim 2, the method comprising:

- a) immunizing an animal with a polypeptide having the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response,
- b) isolating antibodies from the animal, and
- c) screening the isolated antibodies with the polypeptide, thereby identifying a polyclonal antibody which specifically binds to the polypeptide.

7. (As Once Amended) A polyclonal antibody produced by the method of claim 6.

8. (As Once Amended) A method of preparing a monoclonal antibody with the specificity of the antibody of claim 2, the method comprising:

- a) immunizing an animal with a polypeptide having the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response,
- b) isolating antibody-producing cells from the animal,
- c) fusing the antibody-producing cells with immortalized cells in culture to form monoclonal antibody-producing hybridoma cells,
- d) culturing the hybridoma cells, and
- e) isolating from the culture monoclonal antibody with the specificity of the antibody of claim 2.

9. (As Once Amended) A monoclonal antibody produced by the method of claim 8.

10. (As Once Amended) The antibody of claim 2, wherein the antibody is:

- a) a chimeric antibody,
- b) a single chain antibody,
- c) a Fab fragment,
- d) a F(ab')₂ fragment, or
- e) a humanized antibody.

11. An antibody of claim 10, wherein the antibody is produced by screening a Fab expression library.

12. An antibody of claim 10, wherein the antibody is produced by screening a recombinant immunoglobulin library.

13. (As Once Amended) A method for detecting a polypeptide comprising the amino acid sequence of SEQ ID NO:1 in a sample, the method comprising:

- a) incubating the sample with the antibody of claim 2 under conditions to allow specific binding of the antibody and the polypeptide, and
- b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide comprising the amino acid sequence of SEQ ID NO:1 in the sample.

14. (As Once Amended) A method of purifying a polypeptide comprising the amino acid sequence of SEQ ID NO:1 from a sample, the method comprising:

- a) incubating the antibody of claim 2 with the sample under conditions to allow specific binding of the antibody and the polypeptide, and
- b) separating the antibody from the sample and obtaining the purified polypeptide comprising the amino acid sequence of SEQ ID NO:1.

21. A composition of claim 4, further comprising a label.

22. A composition comprising the polyclonal antibody of claim 7 and a suitable carrier.
23. A composition comprising the monoclonal antibody of claim 9 and a suitable carrier.
24. An isolated antibody which specifically binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:1.
25. An isolated antibody of claim 2, which specifically binds to a polypeptide selected from the group consisting of:
- a) a polypeptide consisting of the amino acid sequence of SEQ ID NO:1,
 - b) a polypeptide consisting of residues A90-L102 of SEQ ID NO:1,
 - c) a polypeptide consisting of residues D213-Y225 of SEQ ID NO:1,
 - d) a polypeptide consisting of residues D254-V266 of SEQ ID NO:1, and
 - e) a polypeptide consisting of residues D290-I302 of SEQ ID NO:1.
26. An isolated antibody of claim 2, which specifically binds to a polypeptide selected from the group consisting of:
- a) a polypeptide comprising the amino acid sequence of SEQ ID NO:1, and
 - b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:1, wherein the polypeptide binds calcium.